

Remarks

Claims 1, 3-14, and 19 are in the application, of which claim 1 is independent and claim 19 is new. Claims 2 and 15-18 are canceled by this amendment. Paragraph [0025] of the specification has been amended to correct grammar errors.

Claims 1-18 stand rejected under 35 USC § 112, first and second paragraphs, for, respectively, failure to comply with the written description requirement and indefiniteness. The Examiner points to certain terminology in claims 1, 15, 16, and 18. Applicant has overcome these rejections by canceling claims 15, 16, and 18 and the disputed terminology set forth in claim 1.

Claims 1-6, 8-12, and 14-18 stand rejected under 35 USC § 103(a) for obviousness over Zahaykevich in WO 86/02301, in view of Noddin in U.S. Patent No. 6,103,992 and Abeln et al. in the article "High Precision Machining with Solid-State Lasers." Claims 7 and 13 stand rejected for obviousness over the three references cited above, and further in view of, respectively, Dunskey in U.S. Patent No. 6,433,301 and Yung et al. in U.S. Patent No. 6,809,289. Applicants respond as follows to these rejections.

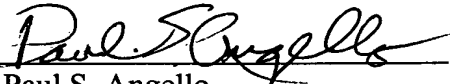
Applicants have amended claim 1 to recite directing a first laser output to impinge a laser target material on its first major surface and thereby form a pilot hole and a second laser output to impinge the target material on its second major surface and thereby form a through-hole that extends through the thickness of the target material. Amended claim 1 finds support in paragraphs [0015], [0025], [0026], and [0028]. None of the prior art of record teaches or suggests performing the claimed differential diameter hole drilling technique to form high quality vias in accordance with a controlled drilling procedure.

New claim 19, which recites a target material that includes silicon, finds support in paragraph [0035].

Applicants believe their application is in condition for allowance and respectfully request the same.

Respectfully submitted,

Weisheng Lei and John J. Davignon

By 
Paul S. Angello
Registration No. 30,991

STOEL RIVES LLP
900 SW Fifth Avenue, Suite 2600
Portland, OR 97204-1268
Telephone: (503) 224-3380
Facsimile: (503) 220-2480
Attorney Docket No. 50001/100:1